
FOLIO

Strategic Planning Groups Warm to Task

Marshall McLuhan once observed that "some of our policy innovators today are driving into the future using a rear-view mirror." Of course, when your institution is 76 years old you have to take the significant developments, be they good or bad, into account, but the eyes should shift to the mirror only occasionally. That appears to be what is happening with the four strategic planning groups at work here.

A backward glance is necessary to put the groups squarely in the reader's sight. At the November 1983 meeting of the Board Governors, President Horowitz and Vice-President Baldwin presented a report on a new approach to strategic planning for the University. It was anticipated that the approach adopted would augment the University's academic offerings until the turn of the century at least. It was noted that the new approach would be driven by academic needs and priorities. Such needs, they said, would be identified "top down" by an advisory committee reporting to the Vice-President (Academic). More significantly, however, will be a "bottom up" approach whereby each academic unit will identify its own priorities within its normal planning processes, but with the realistic expectation that the current "mismatch between the University's resources and its mandate" will continue.

The planning groups named by the President came up for air last June to present status reports to the Board of Governors. Planning Group 1 is responsible for an examination of University capabilities and capacities; Planning Group 2 is considering computing facilities and resources; Planning Group 3 is assessing the University's graduate activity; Planning Group 4 is concerned with programs and program initiatives. The

chairmen are R.S. Patterson, Group 1; G.W. Thompson, Group 2; R.G. Glassford, Group 3; J.A. Bachynsky, Group 4.

Group 1 held a day-long conference on campus last April for the purpose of attracting a wide range of opinion. A questionnaire designed to add essential information to the data base, to confirm the accuracy of existing data and to solicit input on the subjects of areas needing attention and of alternative solutions to critical problems was then developed and sent to Deans and Department Chairmen. It asks for estimates of the current undergraduate enrolment in the various Faculties, an indication of the extent to which factors influencing capacity in the University (number of staff, committee work, equipment, changing demands for courses and programs, etc.) come to bear on a particular Faculty, and recommended changes to "enhance capacity significantly."

The 13-page document put together by Institutional Research and Planning (IRAP) also lists a number of proposals that have been put forward as ways of increasing the University's effectiveness. Among the proposals are: the adoption of an essentially common first year across the University, after which students would enroll in Faculties; reduction of the number of courses required for graduation; Saturday classes and expanded evening offerings; the selective excision of programs; and "do nothing." Questionnaire recipients are asked to select the proposals which they feel are worthy of serious study.

The last question is open ended (respondents can make suggestions which are not on the questionnaire but which they believe are worthy of consideration).

Vice-President (Academic) Meekison, who assumed responsibility for

the over-all workings of the groups when he was appointed to succeed Dr. Baldwin, says that a number of questionnaires have been returned and the remainder should be in soon. Analysis will take place and the results will form the basis of a statement on the long-term objectives of the University.

"It will be difficult to pinpoint all issues...certainly undergraduate capacity is one important consideration," Dr. Patterson says.

There has been no explicit survey of other universities as to their approach to strategic planning, however, E.A. Holdaway, Director of IRAP, has not been working in isolation from his counterparts at other universities.

Dr. Patterson, whose strategic planning file is taking on elephantine dimensions, is somewhat dismayed by the "smorgasbord approach" to higher education in recent years. A common first year would, he feels, serve all Faculties well because they could exercise greater control over the numbers of students and ensure a desirable mix of courses. A common first year would also provide for screening of candidates for entry into the "professional" Faculties.

At the University of Calgary, Dr. Patterson points out, the Faculty of General Studies is tackling this aspect of higher education.

Once the Group's document on a core curriculum is completed it will be submitted to Dr. Meekison and then, in all likelihood, will be placed before the Academic Development Committee, followed by the Executive Committee of General Faculties Council and GFC itself.

The members of Group 1 are: D.R. Badir, D.A. Cook, J.F. Forrest, P.M. Freeman, R. Greenhill, E.A. Holdaway, W.J. McDonald, L.P. Milligan, D.W. Murray, D. Usher, P.A. Watts, T.H. White, and S.I. Jamieson.

Under the chairmanship of G.W. Thompson, Planning Group 2 is developing a questionnaire on the full range of the role, perception, and value of computers in the modern university. The Group will produce a report which will be timely and which will provide the basis for further planning, Dr. Meekison says.

As was noted when the Group began to get its feet wet, there is no disagreement in stating that "no technology, process, or concept will have a greater impact on post-secondary education in the next three to five years than the impact of computing technology."

The membership of Planning Group 2 is as follows: D. Bent, S. Brainerd, G. Davidge, E. Holdaway, S. Hunka, K. Farkas, F. Pidner, A. Rennie, R. Silverman, P. Smy, L.M. Stanford, G. Stevenson and L. White.

Group 3, which is still developing a research instrument, would like to see the Faculty of Graduate Studies and Research become one of the best if not the best in the country. The information collected and used in model building includes workload of staff, ratios of staff to graduate students, quality of graduate students (i.e., number of scholarship holders, admission GPA), research grants/contracts

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held by staff and publications.

Current graduate activity has been assessed and areas that need attention have been singled out. Recommendations for future action should emerge shortly. From those, larger questions related to graduate programs will be posed and widespread discussion can be implemented.

The Group is made up of R.G. Glassford, J. Bentley, R.D. Berg, F.S. Chia, R.T. Coutts, A. Meikle, N. Morgenstern, P.E. Prestwich, B. Rule, B.J. Sproule, K. Tiede and H.W. Zingle.

Planning Group 4 has drafted a report and it is in the process of being refined. The group says that, as the University continues to receive a smaller proportion of the total number of students in post-secondary education due to the opening and growth of new colleges and universities, there is an opportunity to focus on the development of graduate programs.

"This would enable the University to concentrate on an area that it can perform better than the other institutions and to decrease the emphasis on programs that are taught in several institutions."

Currently, the report says, University facilities are not fully used year round. "Managing the resources to yield a return for alternate use or initiating academic programs to make use of the space should be given a pri-

ority in new program approval. In particular, consideration should be given on a University-wide basis to the establishment of a trimester system with the present spring and summer sessions integrated into the summer trimester."

Other conclusions are as follows:

- The University of Alberta, as the leading provincial institution in the humanities and social sciences, must maintain its leadership in scholarly teaching and research.
- Priority should be accorded program initiatives where there was additional evidence of strong support for a program by special interest groups in the community provided the aims of the program are in keeping with the aims

of the University as a whole.

- The University will give a priority to those programs that have less requirement for new funds or that are funded through alternate mechanisms.
- In determining priorities between programs, a number of criteria would be used, as is the case now, to select the programs receiving the highest priority. These would be appropriateness, ancillary effects, need, feasibility and cost benefit.

Planning Group 4's members are J.A. Bachynsky, T. Christian, D. Kassian, R.G. Ironside, J.G. MacGregor, F.V. MacHardy, J. MacPhail, S.A. Mactaggart, P.J. Miller, G. Morcos, D.C. Norwood, H.W. Roberts and A.A. Warrack.

Planning, then, has been under way for some time but as Dr. Meekison points out there is a tendency for the groups to deal with immediate problems rather than long-range problems because it's difficult to look too far down the road. Also, care has to be exercised to fit the planning into the broader picture of universities and colleges in Alberta.

He will continue to meet with the chairmen each month. In his estimation campus-wide discussion of the salient points should be initiated in the spring. Before then, however, there will be ample opportunity for those not directly associated with the planning groups to do some thinking of their own. □

Henry R. Ziel, 1917 - 1984

Professor Emeritus, Henry R. Ziel, died suddenly on 7 October 1984.

With university degrees from the State University of New York, Cornell University and Wayne State University, Dr. Ziel joined the staff of the University of Alberta in 1962 as the first chairman and organizer of its newly-formed Department of Industrial and Vocational Education, established to prepare teachers in response to the federal Vocational and Technical Assistance Act (1961). His concept of industrial education was based on wide experience in the world of work and the field of education, in labor, management, teaching and research activities.

Dr. Ziel was convinced that industrial and vocational education, especially at the secondary school level, is an important facet of general education designed to help young people understand and function in our technologically-oriented society. His influence on the industrial education curriculum of Alberta secondary schools is apparent and far-reaching.

Henry Ziel's contributions did not end with his teaching, leadership, research and publication within the University of Alberta. His interest in the welfare of society and especially of many of its disoriented and disabled members resulted in his creative service to, among others, those in Alberta's Correctional Institutions, the Western Industrial Research and Training Centre for the retarded and

the Phoenix Vocational Training and Employment Project for Physically Handicapped People. Above all, Henry Ziel was an "idea person", an innovator who drove himself and many of his colleagues toward the implementation of his ideas.

"Hank" Ziel will be missed by the many whose lives he influenced.

The University community extends its sympathy to Dr. Ziel's wife, Mary, and to the other members of his family. □

Christmas Bureau Donations Sought

The City of Edmonton is known for its generous voluntary spirit, and at what better time to share it than at Christmas? The Christmas Bureau of Edmonton is once again eager to receive donations of food or money that will enable needy families to enjoy a Christmas meal and experience some festive cheer.

Suggestions for food in hampers include Grade B turkey or a meat voucher, potatoes, oranges, Christmas pudding or cake, cranberry sauce, canned juice, vegetables, tea or coffee, candy or nuts, butter or margarine, buns, salad dressing, and salad greens of your choice.

The Christmas Bureau would like to remind the public that the names of families on social welfare and the elderly must be referred to the Bureau before they can receive a hamper or food certificate. They would also like

people to consider packing and delivering hampers to the Bureau or supporting them with the donation of money. Those people receiving social assistance are encouraged to contact their social workers who will forward their request to the Bureau. The Office is located at the Westin Hotel, telephone 421-9627.

All information is kept in the strictest confidence, and names can be submitted to the following special service agencies: Catholic Social Services (Catholic Hamper Drive), 432-1137, the Salvation Army, 424-6924, and the Royal Canadian Legion (Veterans) 423-3965. The Bureau does not accept names of the needy from the general public. Names must be registered with one of the above agencies or a bona fide source (social worker, clergy, etc.). □

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Workshop Participants Consider New Directions for Dentistry

A summit meeting took place on campus 19 to 21 November. The Faculty of Dentistry, with a large assist from the Alberta Heritage Foundation for Medical Research (AHFMR), engaged in discussions with seven dentists of no mean reputation. The talks on future research ventures and staff development with the support of AHFMR went very well, according to Gordon Nikiforuk, chairman of the group. He could not elaborate, however, because recommendations were still being ironed out and would not be submitted to University administration and AHFMR for another few days.

Dr. Nikiforuk, President of the Canadian Association of Dental Research, and the others were invited by the Faculty, through AHFMR, to look at the Faculty's strengths and weaknesses and consider directions in which dental research might move.

"There were no pre-conditions imposed on us; we thought out loud," Dr. Nikiforuk said of the discussions at University House. The University of Alberta has a unique opportunity to develop a well-rounded research program because of its association with AHFMR. Virtually all dental re-

search is conducted at universities and therefore the research component must be comprehensive, Dr. Nikiforuk said.

In the main, dental personnel are too preoccupied with curative, symptomatic approaches to dental illness, he believes. "Prevention is our primary objective in the long run and that includes paying more attention to the environment as a factor in the cause of disease."

Dr. Nikiforuk, who has served as Dean of Dentistry at the University of Toronto, spoke of the changing pattern in dentistry. Tooth decay is decreasing dramatically in industrialized countries due largely to the use of fluorides and improved dietary patterns. Dentists, he contends, must now look more closely at periodontal diseases, keeping in mind that the expectations of the public are much higher than ever before. This work, however, should not be isolated from other medical problems, he warned.

The other invited participants were Sir Gordon Wolstenholme, Chairman of Nuffield Enquiry on Dentistry in Britain; Harald Löe, Director of the National Institute of Dental Research, and Past Dean, University of Connect-

icut; George Davies, Deputy Vice-Chancellor, University of Queensland; Declan Anderson, Professor of Physiology, University of Bristol, and President of the British Association of Dental Research; Colin Dawes, Professor of Oral Biology (Oral Physiology), University of Manitoba, and Editor of *Journal of Dental Research*; and Robert Genco, Professor of Oral Biology (Periodontology and Immunology), State University of New York at Buffalo.

In addition to bouncing ideas off Tony Hargreaves, Professor and Chairman of Graduate Studies and Research, and Dean of Dentistry Gordon Thompson, the group toured the Faculty and spoke with staff members

in some detail.

As the workshop drew to a close, the group was putting the finishing touches on a set of recommendations to be submitted to President Horowitz and his colleagues in central administration and to AHFMR and Dr. Hargreaves and co-convenor Bill MacDonald, a research management consultant attached to the Faculty of Dentistry, were resting comfortably. It seems that the participants were invited quite some time ago (each readily agreed to come here so the backup list was set aside) but their arrival coincided with Grey Cup weekend and accommodation and transportation were thrown into a dither. □

Austria Honors University Employee

The Republic of Austria has presented a prestigious gold medal to Frank Pidner, Administrative Professional Officer in the Faculty of Dentistry, for his outstanding hospitality and efforts in making the Austrian Universiade team "feel as much at home as possible."

Mr. Pidner received the gold medal from the Associate Minister of the Republic of Austria on 10 October in Vienna. His nomination for this award, which is only given to foreigners, was initiated by the top-ranking officials with whom he worked during the World University Games.

As Chief Guide for the Austrian Team, his duties consisted of the coordination and facilitation of the movements, social activities and general

well-being of the team, as well as acting as German translator, social convener and host extraordinaire.

The team consisted of 15 athletes and 15 support staff (trainers, physiotherapists, coaches, etc.). The athletes competed in fencing, swimming, cycling and the decathlon competitions, but the only medal brought home was a silver in the decathlon.

The medal and printed document that accompanied it are now in a glass display case in Mr. Pidner's home, but that doesn't mean that his career in hosting has ended. He has suggested that the Calgary Winter Olympic Games in 1988 could benefit from the expertise gained by Edmonton organizers and is staying tuned. □

Computing Services Bulletin Cleans Up Stateside

This year, as in other years, the Computing Services *Bulletin* entered the Association for Computing Machinery (ACM) SIGUCCS 1984 Newsletter Contest. The difference this year is that the publication took top honors in two categories. The *Bulletin* was singled out as best newsletter from outside the United States and best over-all in the larger and/or (*sic*) more expensive typeset publications.

The ACM is a prestigious international organization; SIGUCCS stands for Special Interest Group for University and College Computing Services.

Judging took place at the University of California, Berkeley, Computing Services Department, last year's overall winner.

Maureen Keates, assistant editor of the *Bulletin*, represented Computing Services at the Twelfth Annual User Services Conference in Reno, Nevada, in mid-November and accepted the awards on behalf of the *Bulletin* staff.

As the 1984 over-all winner, the Department of Computing Services will sponsor the 1985 competition, so it will be at least two years before the *Bulletin* can steal the limelight again. □

City's Food Bank Needs Deposits

University of Alberta students, through their student clubs, are being challenged to make the reality of hungry Edmontonians an issue. During the last week of classes, 3 to 7 December, the undergraduate student population will contribute canned food to the hungry in Edmonton. A competition between Faculties has been set up to make it interesting. Staff members are asked to help their students in this "hands-on" experience

in societal living."

During the last week of classes, some students will experience guilt because they did not work harder during the semester. John C. Van Damme, Department of Secondary Education and a representative of Edmonton's Food Bank, says, "To alleviate this guilt and placate the angry gods (professors) it may be suggested that the students bring canned food as a votive offering." □

Workshop on Teaching Well Received

Virtually everyone likes to talk about their work and when five individuals who have been cited for excellence in their field get together the conversation causes ears to perk up.

Such was the case last Tuesday when Rutherford Undergraduate Teaching Award winners P.A. Field (Nursing), M.J. Dunn (Business), J. Kuspura (Genetics), F. Vermeulen (Engineering) and S. Willard (Mathematics) held forth at a two-hour workshop entitled "What Good Teachers Say About Teaching." The moderator of the Committee for the Improvement of Teaching and Learning-sponsored workshop was President Myer Horowitz.

As a member of the small but highly receptive audience pointed out, there is no one way of teaching. There are, however, various strategies and helpful hints that can make a class a meaningful session for all concerned. Dr. Willard, for example, advocated that teachers plan lectures in advance and know exactly what they want to accomplish in each class. To bridge the gap with students, humor and informality have their place and courtesy must never be discounted. Anger, sarcasm and defensiveness are to be

avoided. The latter pitfall, he said, is difficult to skirt, especially when a student asks a question to which the teacher doesn't know the answer.

Dr. Vermeulen emphasized that at the first class students should be told what the course entails, what they should learn and the problems that they can expect to solve once they have absorbed the content. He tries to put students into a frame of mind in which a little voice says, "This is easy." Erase mental blocks, encourage questions, use analogies, and induce students to identify with the topic, Dr. Vermeulen recommended. "If the students aren't interested, it's the teacher's fault. The teacher must take his/her responsibility seriously."

Dr. Kuspura, who has been on staff since 1954, advised teachers to teach by their nature. "Be enthusiastic and do the best you can in each lecture. The student may have paid \$100 for the course but he's going to get \$150 out of it."

Learning should be qualitative and quantitative. This can be accomplished by having a highly organized course, by presenting the material in a thorough manner and in logical sequence, that is, conveying general

concepts first and then moving into the specifics.

Dr. Field teaches R.Ns. who have at least a diploma in Nursing and a measure of nursing experience. She starts planning for her courses in the summer and takes time to find out who her students will be (15 to 18 per course) by checking pre-registration data.

Making oneself available is important; she maintains an open door policy in the Faculty of Nursing and at home. James Dunn did too until last Easter Sunday when he got a 5 p.m. call from one of his students. "Students don't like surprises. My course outline is a contract with the students, so I don't change it during the year," he said. An Associate Professor of Marketing and Economic Analysis, Dr. Dunn spends a good deal of time researching his material because "a problem well defined is a problem half solved."

He wants his students to understand that when they turn in an assignment, it's the best they can do. "Students are marketing themselves to me in the final analysis," he said.

A number of questions were raised by the audience. On the matter of dis-

cipline in class, Dr. Vermeulen stressed consistency. "Students want to learn so bring out the best in them by your attitude." Dr. Horowitz, who recalled his teaching days with affection, said that one way to get the class's attention was to stop in mid-word. He related how he once walked out of the room, saying, "When you want to be taught, I'll be in the staff room." Of course that set him to wondering if he would hear from them before the day was out.

The use of profanity was deplored by the panel and Dr. Dunn said it was necessary to discount to a degree the "class performer" who will get in 14 questions in every class at the expense of other students.

Dr. Field made the point that by engaging in dialogue with students she always knew much more about the subject at the end of the course than she did at the beginning.

Among the parting advice was encouragement for teachers to be themselves, to relax and not be afraid of having others relate to them as human beings. □

Distinguished Visitor to Chemistry Department Will Speak on Safety

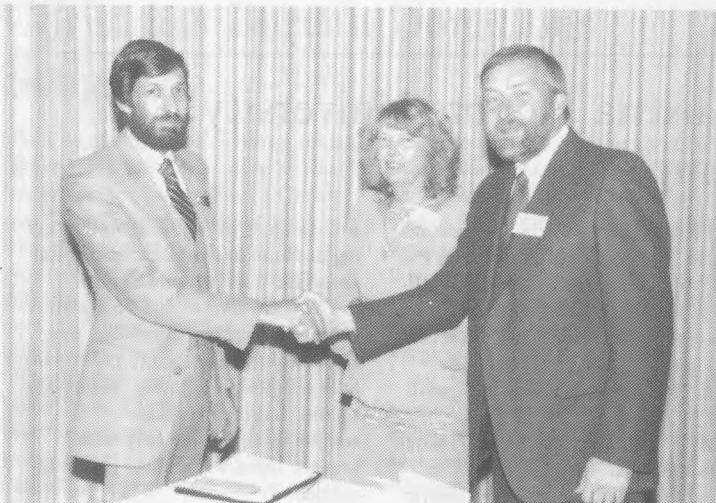
Herbert O. House, Professor of Chemistry, Georgia Institute of Technology, will visit the Department of Chemistry on 3 and 4 December. Professor House was the first recipient of the American Chemical Society's Chemical Health and Safety Division Award. He was honored for his chairmanship of the National Research Council Committee on Hazardous Substances in the Laboratory and for the 1981 report on "Prudent Practices for Handling Hazardous Chemicals in Laboratories."

On Tuesday, 4 December, at 11 a.m. in V-107 Chemistry Building, Professor House will speak on "Is It Really Safe to be a Chemistry Ma-

jor?" This will be followed at 2 p.m. by the Sixth Annual Chemistry Department Safety Seminar in V-111 Chemistry Building. Highlights of the seminar will be a panel discussion on "Safety in the Chemical Laboratory" with Professor House, Dwight Bowhay, an occupational hygienist with Alberta Workers' Health, Safety and Compensation, and Doug Flood of Dow Chemical, and a talk by Mr. Bowhay on Alberta's chemical hazard regulations.

Everyone interested is invited to attend the seminars. Further information from Gordon Weir, Department of Chemistry, 432-5346. □

Richard Jahn, left, former President of the Graduate Students' Association, was one of 11 ex-members of the Board of Governors honored at a retirement function at the Faculty Club last week. Carl Paproski, MLA for Edmonton Kingsway, represented Alberta Advanced Education, and Janet Bentley and other current Governors contributed to the festivities. Also given a royal send-off were Bob Aschah, John Barry, Brian Bechtel, Max Berretti, Bud Conway, Robert Greenhill, Steve Hunka, Dorothy Richardson, Wes Sawatzky and Dave Usher and Brian Silzer, former Administrative Director of the Board.



First Volume of Encyclopedia of Ukraine Feted

On 15 November, a wine and cheese reception was held at the Faculty Club to mark the appearance of the first of four volumes of the alphabetical Encyclopedia of Ukraine in English. Covering the letters A to F, it is the fruit of research by more than 100 scholars in the Western world, at a cost of almost \$1 million.

The volume was unveiled in Toronto on 26 October by the University of Toronto Press, publisher for the three sponsors of the project: the Canadian Institute of Ukrainian Studies (University of Alberta), the Canadian Foundation for Ukrainian Studies (currently headquartered in Vancouver) and the Shevchenko Scientific Society in Europe, Sarcelles, France (near Paris).

The first volume is an updated and translated version of *Entsyklopedia ukrainoznavstva*, a work initiated 35 years ago by the Shevchenko Scientific Society, the oldest Ukrainian learned association. It is edited by Volodymyr Kubijovyč, the distinguished Ukrainian scholar who has lived and worked for many years at Sarcelles. The managing editor is Danylo Struk, Department of Slavic Languages and Literatures, University of Toronto. Over-all project coordinator is Manoly Lupul, Director of the Canadian Institute of Ukrainian Studies.

The first volume is 968 pages in length and contains approximately 2,800 entries, 450 black-and-white illustrations, five color plates, 83 maps (six in color) and a large fold-out map of Ukraine with a 32-page gazetteer bound separately in the same binding as the book. The price of the volume is \$90 until 31 December 1984 and \$115 thereafter (plus \$4.50 for postage and handling). A special Collector's Edition of 100 numbered copies, quarter-bound in leather with the spine, front covers and slip case stamped in gold foil, retails for \$500. Both volumes may be obtained from the Institute's distributor, the University of Toronto Press, 5201 Dufferin Street, Downsview, Ontario M3H 5T8.

It is intended that each of the four volumes be about 1,000 pages and that they appear hereafter in intervals of three years. The entries are divided into five groups:

1) Entries on Ukraine's geography

and natural environment, archaeology and history, jurisprudence, the church, language and literature, education, art, theatre, music and the economy; 2) Entries which survey the various scholarly disciplines in Ukraine, including anthropology, botany, chemistry and economic studies as they relate to Ukraine;

3) Entries on Ukraine's geographical-historical regions: e.g., Azov (Sea of), Bessarabia, Black Sea, Bukovyna, Carpathian Mountains, Chernihiv Region, Crimea, Dobrudja, Don Region, Donets Basin;

4) Entries dealing with Ukraine's relations with other countries, contacts between Ukrainians and other peoples and nations, countries to which Ukrainians have emigrated, and national minorities in Ukraine: e.g., Albanians, Armenians, Austria, Brazil, Canada, Czechoslovakia, Far East, France, and many cities with Ukrainian communities: e.g., Berlin, Chicago, Edmonton;

5) Entries with brief accounts of individuals, geographical locations, periodicals and publications, associations and organizations, and historical, po-



Manoly Lupul (left); John Stashuk, President of the Canadian Foundation for Ukrainian Studies (centre); and Chancellor Savaryn, immediate Past President of the Foundation, inspect the tome.

litical and economic periods, events and institutions.

The encyclopedia project is the joint effort of four bodies whose purpose is to develop scholarly Ukrainian studies: 1) the Canadian Institute of Ukrainian Studies, which coordinates the English-language project and finances its preparation; 2) the Shevchenko

Scientific Society which prepared the nine-volume Ukrainian-language work on which the English version is based; 3) the Encyclopedia of Ukraine office at the University of Toronto, which prepares the English-language version; and 4) the Canadian Foundation for Ukrainian Studies, which covers the publication costs. □

Senators Discuss White Paper

Following three presentations on responses to the province's White Paper, members of this University's Senate took part in a lengthy discussion examining, among other things, the University's role in the future development of the province and the transfer of technology to industry.

The platform for discussion was the Senate's final meeting of 1984, held Friday, 16 November. Paul Alpern, Students' Union, outlined that body's response to the Paper, emphasizing that it has particular impact on students. He said the SU's response was remarkably similar to that of the University, adding that prioritizing job related courses is a must if the University is to meet students' needs in the future. Mr. Alpern suggested that work co-op programs should be implemented because job experience is a necessity given the competitive job market.

Transferring technology from the University to industry was dealt with

by Robert Armit, Director of Research Services. Mr. Armit emphasized the University's commitment to industrial research and pointed out that, currently, there is \$50 million worth of sponsored research taking place on campus. He said the problem in the province is the gap between basic research and the commercializing of the product, in other words, the technology transfer to the industrial sector. In an attempt to overcome this difficulty, Mr. Armit referred to the joint venture involving Majestic Laser Systems and the Department of Electrical Engineering whereby a separate company was established in an attempt to commercialize high powered lasers. The lasers to which Mr. Armit referred are large, state-of-the-art, carbonized lasers. It is expected that there will be a major revolution in the industry toward this kind of laser in the next five to ten years. Mr. Armit also told Senators about Research Services' aim of "50 in 5",

which calls for a minimum of 50 technology transfer projects involving the University and industry over the next five years.

Prior to the lengthy discussion on the White Paper, Senate heard a number of reports, including that of Chancellor Savaryn who outlined his numerous commitments during the past several months. He also welcomed new members Gordon Webster (representing General Faculties Council) and Bert Krull (Alumni Association), and extended best wishes to Charles Lockwood, Dean of Extension, who will step down soon.

Following lunch in The Ship, Senate reconvened to hear W.J. McDonald, Dean of Science, provide an overview of the Faculty and to receive reports from the Senate Lay Observers of the Admissions Process in Quota Faculties and the Faculty of Extension Council. □

December 1984

| November | January | February |
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|--------|--|---------------------------------|---|--|---|--------------------------|
| 2 | 3 ■ GFC Executive | 4 | 5 | 6 | 7 ■ Board of Governors ■ Last day of classes in first term except for students in Dentistry and Medicine | 8 ■ NASA Christmas Party |
| 9 | 10 | 11 ■ NASA Reps' Council Meeting | 12 | 13 ■ Until 19 December, Mid-session examinations | 14 | 15 |
| 16 | 17 | 18 | 19 ■ Last day of first term examinations in all other Faculties except the Faculty of Engineering | 20 ■ Last day of first term examinations in the Faculty of Engineering ■ Last Follo until 10 January | 21 | 22 |
| 23 | 24 ■ Until 26 December, Christmas holidays; University buildings closed | 25 | 26 | 27 | 28 | 29 |
| 30 | 31 | | | | | |

Colloquy

With this submission by J.W. Osborn, Folio resurrects "Colloquy", a column devoted to the free expression of opinions held by members of the University community. The criteria for the use of this space are as follows:

missions must be no longer than 1,500 words in length, and they must be typed and double spaced. Submissions must deal with issues that are of general interest to the University community, and they should be signed. While

Folio is the official news bulletin of the University of Alberta, the opinions expressed in "Colloquy" will not necessarily reflect University policy or the opinions of the Editor. Submissions should be sent to Colloquy, Office of

Community Relations, 423 Athabasca Hall. Submissions will not be returned, and the Editor cannot guarantee publication. Shorter submissions will be considered for publication under "Letters."

Instructors, Teachers and Lecturers at Universities

Although it might seem equivalent to an attack on the sacred role of fatherhood I confess I have for some time been very uneasy about the barrage of attempts to induce me to attend classes which, it is claimed, will help me to improve my teaching skills. I fully recognize the importance of teaching but there is something about the titles of the classes—confirmed by the content of the three which I dutifully attended a few years ago but have now largely forgotten—which is totally alien to my concept of university lecturing. I have discussed this with colleagues and commonly encountered similar doubts but it was only last week we finally stumbled on the origin of our apparently patricidal proclivities. As is so often the case it depended on finding and defining the terms we were using.

There are, for the purposes of my argument, three forms of educators who stand with their backs to a blackboard and talk to a class. They are instructors, teachers and lecturers. The crux of my argument will be that although I do some teaching, and enjoy it, I am primarily a lecturer and not an instructor or teacher. To explain this I must describe the differences—as I see them, of course.

It is the job of an instructor to train a class how to do things such as prepare an inlay cavity (in dentistry) or a blood smear (in medicine), graft tissue onto a chorio-allantoic membrane (in zoology) or set up a sepharose column (in biochemistry). An instructor has precisely defined terminal behaviour objectives. It is not the duty of an instructor to explain to the class in any depth how a technique has been developed or why it works. They are being trained to follow a series of steps in a strictly methodical and ac-

curate way to achieve a required result. For this purpose the class is provided with a manual prepared by the instructor and/or occasionally a textbook. Each lesson is carefully planned and rigidly completes its allotted span. There is no significant intellectual challenge although a reasonable memory and manual dexterity are required from the students. Success can be measured by a multiple choice questionnaire examination and by practical tests with marks rigidly awarded point by point. This is known and agonized over in the trade as student evaluation. Because the course contains little which is beyond the ability of most of the class and the terminal behaviour objectives can be so clearly defined I think an instructor carries much of the responsibility for the skills which pupils achieve. An instructor's work could probably be best done by a computer in combination with video-tapes and other electronic aids. For this reason an instructor can benefit by attending a teaching course which will attempt to align his or her method of instruction more closely to that designed for average student skills with the aid of a computer.

A teacher gives lessons and is concerned with the three lowest cognitive skills; knowledge, understanding and application, rather than the psychomotor skills of instructors. Like them a teacher gives highly structured lessons each of which has a clear terminal behaviour objective; for example, to memorize the elements of the periodic table (in chemistry), the integrals of certain functions (in mathematics), a current classification of extinct hominids (in anthropology), or the branches of the abdominal aorta (in anatomy). The students depend in

part on a textbook and/or manual but usually take more notice of what the teacher tells them and what is in the manual rather than what is contained in the textbook. They must memorize material in order to reproduce it at the examination in a form closely resembling that given by the teacher and his/her manual (it would be a bad mistake to provide in examinations a classification of hominids different from the teacher's). Accurate repetition will achieve high marks which can reach 100 percent. As with an instructor's course there is no significant intellectual challenge. For this reason the course is best examined by multiple choice questionnaires and short answer questions. It is the responsibility of the teacher to motivate students to learn. This can be most easily achieved by homework assignments and spot tests. The teacher could benefit from teaching courses which try to mold his/her technique more closely to that which could be reproduced by a computer programmed to respond to average abilities. In fact a computer together with other audio-visual aids would generally make a better teacher and a more accurate examiner.

Instructors and teachers have a role to play in universities but it is subsidiary to something far more important—their role as lecturers. Instructing and teaching comprise the canvas and the background whose construction could be left to an artisan and an apprentice, respectively (or a computer). Lecturing is the painting itself and requires the brushstrokes of a master. We are each of us a mixture of instructor, teacher and lecturer but the greatest of these by far is lecturer.

A lecturer gives lectures to undergraduates, not lessons to students, and

hopes to stimulate the development of capacities for evaluation, synthesis and judgement, the three highest cognitive skills. There are no precise terminal behaviour objectives. To set them would tend to reduce the course to a test of memory and stultify the ambition of the undergraduates. A university education is open ended.

To explain the difference between a lecture and a lesson suppose you were invited to talk about your research to a faculty at Harvard. You would not give a lesson: you would deliver a lecture (I hope). You begin by assuming your audience has above average intelligence and is willing to be interested in your work otherwise they would not attend your lecture. You are not responsible for them passing an examination but instead you try to interest, inform, challenge, generate enthusiasm and so on in return for a not too modest honorarium and all expenses paid. That is a lecture.

As a professor lecturing to undergraduates at your university the difference is that the honorarium and expenses are replaced by a salary, the subject is not necessarily your research and undergraduates rather than faculty staff form your audience. It is desirable that you have undertaken research within the field of your lecture course or that you are close to the forefront due to extensive reading. You attempt to challenge your undergraduates intellectually. They may, reasonably, choose not to attend your lectures because they have a library (not a manual) from which they could obtain much of the content of your talks or, at least, sufficient to pass your examinations. They, not you, are responsible for passing your examinations and from them you will look for evaluation, insight, judgement,

synthesis and originality in the essays they compose for you. Your undergraduates, unless they are Einsteins, can rarely achieve a 75 percent mark. Neither a computer nor all the audio-visual aids in the world could match your performance unless, of course, you had developed an electronic program during the weeks before your lecture. You do not construct tailor-made manuals, partly because knowledge may have changed before the time for your scheduled lecture(s) arrives but largely because they cannot stimulate and challenge the imagination. Only the library, with its constantly growing data, is an adequate reference source for your undergraduates. They do not learn during your lectures: you merely stimulate them to study. Learning comes later when they have had time to think and read about, discuss and digest the contents of your lecture. No course in the use of teaching crutches (aids) can other than marginally improve your performance. It is your own enthusiasm, knowledge and experience that matter. A 'computer-directed' teacher cannot be sidetracked by new ideas, respond to audience enthusiasm or boredom, take the opposite side of an argument, admit ignorance, tell the class to question everything s/he says, confuse them with sophistry and paradox, convert the base metal of fact into the gold of reasoning and, when finished, leave behind an explosion of silence and thought. That is my ambition as a lecturer.

Multiple choice questionnaires and short answer questions may test my effectiveness as a teacher but they say nothing about my ability as a lecturer. I need essays and oral examinations to test my undergraduates. Ye Gods! That is why I am at a university instead of a high school. I am not primarily a teacher—I am proud to be a lecturer and to hell with the computer, audio-visual aids, teaching manuals and MCQ. Can you not remember how a lecturer, a true lecturer as opposed to a teacher, affected you? Those of you who have been inspired by one know exactly what I am writing about. Those of you who have not—it's a pity because I don't think you will understand what I have written here. But if we substitute good teaching for good lecturing we are condemning to extinction most of what a university education should mean. Perhaps I am a dinosaur. But the art of lecturing is being threatened. It is about to be

substituted by the skills of teaching and inevitably, in turn, by the utterly unimaginative "hello" and "well done" of a computer which can do little more than stimulate memory.

We are all required to be a mixture of teacher and lecturer. But which of these is more important to you? I think the meaning of a university education and, indeed, the role of universities in society depend on your choice. □

J.W. Osborn, Chairman
Department of Oral Biology

Letters

A Contrary Pronoun

From "The Bangladesh Connection", Folio, 15 November 1984, p.4: "(He) compiled information that will stand he and three faculty members in good stead...."

May I congratulate you on the enlightened usage of English represented by the above phrase? Just between you and I, some purists, perhaps, might object to what they would consider an unconscionable abuse of our tongue, but fie on they! The Committee that I represent (and that has many members, most of them not card-carrying but with us in spirit) stands four-square behind he who wrote these lines. Many Bangladeshis speak an all too proper English so it behooves we to follow your example and teach them to speak like you and I.

J. Gordin Kaplan, Chairman,
Emergency Committee for Abolition
of Obsolete Personal Pronouns

Ed. note. Folio cleverly decided to test the alertness of Dr. Kaplan's committee and it passed with flying colors. Seriously, it sounds like a worthy body and we wish it every success.

people

At its recent annual conference in Red Deer, the Science Council of the Alberta Teachers' Association awarded its Distinguished Service Ci-

tation to *Marshall A. Nay* (Secondary Education). This is one of the two major awards made by the Science Council in recognition of a broad, extended contribution to science education in Alberta over a period of years.

Edward Bishop (Mactaggart Fellow, English) gave a paper entitled "The Shaping of Jacob's Room: Virginia Woolf's Manuscript Revisions" at the November conference of the Philological Association of the Pacific Coast in Vancouver.

Olive Patricia Dickason (History) was commentator on a panel, "The French Colonial Peoples of North America, Métis and Cajun Identites," at the conference of the American Society for Ethnohistory, 8 to 11 November, in New Orleans.

Myer Horowitz (President) has been appointed by the Association of Universities and Colleges of Canada Board as its representative on the 1985 National Universities Week Committee. He will serve as Co-Chairman of the Week which will take place 19 to 27 October 1985. On 20 November, Dr. Horowitz spoke to the Edmonton Branch of Executive Women's International on this year's theme of that organization "If Not You—Who?"

service
information

All information to be included in this column must reach the Office of Community Relations by 9 a.m. the Thursday prior to publication.

Coming Events

Lectures and Seminars

Arts

29 November, 4 p.m. G. Kelly, "Selves from Texts." 5-20 Humanities Centre.

Entomology

29 November, 4 p.m. K.P. Fennie, "Leg Structure with Respect to Detection of Water Vibration by *Gerris Remigis*." 245 Earth Sciences Building.

6 December, 4 p.m. B.S. Heming, "The Mechanics of Sperm Use by Female Velvet Water Bugs (Hemiptera, Hebridae)" or "How Do Little Mothers Cope with Big Eggs?" 245 Earth Sciences Building.

Art and Design

30 November, 2:30 p.m. Ronald Shakespear, co-designer of the signage system for the City of Buenos Aires and the signage system for the hospitals and children's hospitals of that city, will discuss his work that centres on signage, supergraphics and corporate identity programs. 2-20 Fine Arts Building.

Computing Science

30 November, 3 p.m. H.J. van den Herik, Delft Technical University, the Netherlands, "How to Derive Expert Rules from a Perfect Body of Knowledge." 619 General Services Building.

History

30 November, 3:05 p.m. T. Brook, "Death and Society in Seventeenth-Century China." 2-58 Tory Building.

Alberta Heritage Foundation for Medical Research

30 November, 3:30 p.m. Sergei Federoff, Department of Anatomy, University of Saskatchewan, "Early Development of the Brain Revisited." 345 Earth Sciences Building.

3 December, 4 p.m. M. Koomey, Department of Medical Microbiology, Rockefeller University, "Studies on Cloned Gonococcal Pili and IgA Protease Genes." 2-27 Medical Sciences Building.

Romance Languages

1 December, 6:30 p.m. "Poemas y música"—readings in English and Spanish of poetry from Spain and Spanish America (Martí, Machado, García Lorca, Vallejo, Mistral, Neruda, Cardenal) with live and recorded music. A donation of \$3 gives you coffee and a surprise gift. L-1 Humanities Centre.

Medicine

3 December, 8 a.m. W.H. Lakey, "Update—Renal Transplants." 2-115 Clinical Sciences Building.

Forest Science

3 December, noon. Kerttu Harkonen, "Vegetation in Relation to Peat and Water Characteristics on Some Peatland Site in Central Alberta." 3-1 Mechanical Engineering Building.

5 December, noon. Antti Makitalo, "Tree Growth in Relation to Site Characteristics Within Selected Peatland Ecosystems in Central Alberta." 3-1 Mechanical Engineering Building.

Plant Science

3 December, 1 p.m. Hank Bestman, "Properties of the Plant Plasma Membrane ATPase." 1-06 Agriculture-Forestry Centre.

Mathematics

4 December, 3:30 p.m. J.W.-H. So, "Bifurcation of Codimension Two of Maps of R_3 ." 657 CAB.

Limnology and Fisheries

Discussion Group

6 December, noon. Christine Campbell, "Phytoplankton Productivity in Prairie Saline Lakes—Why Is It So Low?" G-217 Biological Sciences Building.

Physiology

6 December, 3 p.m. Amira Klip, "Regulation of Glucose Transport by Insulin and Non Hormonal Factors." 2-31 Medical Sciences Building.

Geography

7 December, 2 p.m. John England, "The Inuitian Sea." 3-36 H.M. Tory Building.

Music

Department of Music

All events take place in Convocation Hall.
30 November, 8 p.m. A Faculty Recital—Diane Nelsen, soprano; Ronald Nelsen, baritone; Alexandra Munn, piano.
1 December, 8 p.m. Bach Organ Series—Marnie Giesbrecht-Segger.
2 December, 3 p.m. The University of Alberta Concert Band—Ernest Dalwood, conductor. Adults \$4, students/senior citizens \$2.
3 December, 8 p.m. Guest Artists—Colin Ryan, cello, and David Tut, piano.

Exhibitions

Ring House Gallery

Until 21 December. "Peace Earth Peace" An international correspondence/mail art exhibition.

Bruce Peel Special Collections Library

Until 11 January 1985 "The Gregory Javitch Collection: Two Aspects," and "Sing, Heavenly Muse!" The former contains rare books from the sixteenth and seventeenth centuries dealing with the exploration of the New World and the ceremonies and dances of Indians. Printed and manuscript laws and treaties documenting European effort to regulate Indian life and to remove native populations from areas of white settlement. The latter contains poetry from the Renaissance to the Present, in first and illustrated editions. Hours: Monday to Thursday, 8:30 a.m. to 6 p.m.; Friday, 8:30 a.m. to 5 p.m.; Saturday, noon to 5 p.m. B-7 Rutherford South.

Films

Germanic Languages

5 December, 7:30 p.m. "Der Wolf und die sieben Geisslein" (1957). 17 Arts Building.

Radio and Television

Radio

Programs broadcast on CKUA radio 580 AM and 94.9 FM.

1 December, 7 p.m. University Concert Hall presents the "Madrigal Singers." Guest conductor: Leonard Ratzlaff.

5 December, 7:30 p.m. International Development—"Women in the Third World."

Television

Programs broadcast on ETV Q-9 and Shaw-13.

5 December, 8 p.m. Research in the '80s at the U of A.

Sports

Volleyball

29 November, 7 p.m. Pandas vs. China. Varsity Gym.

30 November to 2 December Golden Bears and Pandas host the North-Am '84 Tournament. Varsity Gym, Pavilion and Education Gym.

Basketball

29 November, 8:45 p.m. Golden Bears vs. University of Western Ontario. Varsity Gym.
30 November, 7 p.m. Pandas vs. Edmonton Seniors. Universiade Pavilion.
30 November, 8:45 p.m. Golden Bears vs. Brock University. Universiade Pavilion.
6 December, 7 p.m. Pandas vs. Brandon. Varsity Gym.
Swimming
8 December, 2 p.m. Golden Bears and Pandas vs. Alumni. West Pool.

Matters of Faith

Catholic Campus Ministry

St. Joseph's College Mass Time, September to April. Monday, Wednesday, Friday - 7:30 a.m., 12:10 and 4:30 p.m.; Tuesday, Thursday - 7:30 a.m., 12:30 and 4:30 p.m.; Saturday, 4:30 p.m.; Sunday - 9:30 and 11 a.m., 4 and 8 p.m.

Anglican - Presbyterian - United Chaplaincy

Bible study on Gospel of John—Tuesday, noon; Anglican Eucharist—Thursday, noon. Both in Meditation Room, 158A SUB.

Lutheran Campus Ministry

Sunday Worship with Eucharist - 10:30 a.m., Meditation Room.
Thursday Evening Worship - 7:30 p.m., Lutheran Student Centre, 11122 86 Avenue.
Noon Hour Bible Study - Wednesdays at noon, Meditation Room.

Faith Share

Mondays, 7 to 9 p.m. Group singing, sharing, teachings and discussions. All welcome. Contact Kim at 436-6346 or Curt at 433-9377 for further information. St. Joseph's Chapel.

Theatre

SUB Theatre

29 November, 8 p.m. "Hot Dog.. The Movie" (1984).
30 November, 8 p.m. "Oxford Blues" (1984).

Studio Theatre

29 November to 8 December. "Our Town" by Thornton Wilder. For tickets or further information, call 432-2271.

Non-Credit Courses

Computing Services

MTS (Michigan Terminal System)
MTS and Editor Fundamentals (Prerequisite)
A1510 Operation and Visual Editing (Prerequisite)
MTS Overview (Prerequisite)

TEXTFORM

Introduction to Text Formatting (Prerequisite)

SPIRES

Introduction to SPIRES (Prerequisite)
Advanced SPIRES

Graphics

Integrated Graphics Overview (IG)

Statistics

Data Preparation for Statistical Packages (Prerequisite)

Introduction to SPSSx

SPSSx Conversion

Introduction to BMDP

Introduction to MIDAS

Introduction to MINITAB

Introduction to TROLL

Microcomputers

Introduction to the IBM PC

Introduction to the Personal Editor

Introduction to MultiMate

Advanced MultiMate

The above courses are offered regularly through the day with limited evening selections. Registration will be taken over the phone for all courses except evening courses. These may be made in person at 352 General Services Building, or by mail. Payment must accompany registration for all evening courses. Please make cheques payable to the University of Alberta.

Waiting List Courses

The following courses are only offered when a sufficient number of people express an interest.

Advanced Text Formatting
Courier Operation and Visual Editing
Introduction to Plotting
Introduction to Programming
Introduction to Typesetting
Introduction to APL
Introduction to the Array Processor
Introduction to APAL
Introduction to Clustan
Introduction to TSP
Introduction to Osiris
Introduction to Tell-A-Graf

For more information on any of the courses listed above, telephone the Training Coordinator at 432-2511, between 8 a.m. and 4 p.m., weekdays.

Faculty of Extension

Certificate Programmes

For further information on the programmes listed below, telephone 432-5545 or 432-3027 between 8:30 a.m. and 4:30 p.m., Monday to Friday.

Management Development
Personnel Administration
Computers and Business Data Processing
Industrial Security Management
Purchasing Management Development

Citation Programme

For further information on the following programme, telephone 432-5545 or 432-3027.
Executive Development Programme for Women

Land Use Planning

For further information on the course listed below, telephone 432-2912.

Planning Law

Applied Behavioral Sciences Division

For further information on the courses listed below, telephone 432-5069.

Life Power

Methods for Therapeutic Magic I (Introduction)
Assertion and Interpersonal Skills Training

Liberal Studies

Please call 432-3033 for information on Winter/Spring course offerings.

One-Day French Immersion

PLATO Learning Centre

'Computer-Taught' courses can be taken at your convenience. For further information on this unique way of learning, call 432-2444.

Introduction—Keyboarding, Word Processing Excellence in Administrative Assistant/Secretarial Work

Introduction—Computers, Data Processing Introduction to Programming—BASIC, PASCAL, FORTRAN

Time—Resource, Financial or Planning Management

Adult Education Training

For information on the following courses, telephone 432-5050.

Using Audiovisual Media in Adult Education: The Informed Approach

Leading Adult Group Learning Experiences

Writing and Producing Effective Brochures for Continuing Education Programs

Devonian Botanic Garden

For a detailed brochure and registration form, telephone 987-3054.

Willow Planter or Fern Stand

Introduction to Kitchen Cosmetics and Simple Remedies

Notices

First Aid Course

The Department of Occupational Health and Safety will hold one more first aid course before the end of the year.

The Standard First Aid Course is scheduled for 10 and 11 December (8:30 a.m. to 4 p.m. each day). Costs are \$30 per person or \$50 per couple.

For further information, contact Pat Barabash, 107 Education Car Park, 432-5614.

NASA Bash

On 8 December, the NASA Social Club will hold its Christmas Dinner and Dance. Tickets are \$15 per person/cash bar and are available from Loretta (432-5282) or the NASA Office (439-3181) until 30 November. All members and their friends are invited to attend.

It's in the Cards

CANSAVE Christmas cards, ranging in price from \$2 to \$4 for a package of ten, can be purchased at the English Department Office, 3-5 Humanities Centre.

International Students Friendship Program

To become better acquainted with a Canadian family or experience a traditional Canadian Christmas, international students are invited to call 432-5950 (9 a.m. to 5 p.m.) or 436-3353 (6 to 9 p.m.). Deadline, 3 December.

Capital Equipment Purchases

A program has been developed to provide the carry-over of unspent capital equipment funds into

the next budget year. This carry-over will be limited to the lesser of 15 percent of the departmental capital equipment budget or \$50,000. Where the balance of unexpended funds is sufficient, commitments incurred by purchase orders placed before 31 December will be allocated a carry-over equivalent to the amount of the commitment.

Where the balance of your unexpended and/or uncommitted capital equipment budget is currently in excess of the foregoing limits, you are urged to place purchase orders for your further needs now to help ensure that delivery is effected before 31 March 1985. The program will not provide a carry-over in relation to commitments by purchase orders placed later than 31 December other than in instances where a well documented justification of circumstances merits exception. Application for exemption should be submitted to the attention of D. Grover, Office of the Comptroller. Final approval on capital equipment carry-overs remains with the Associate Vice-President (Facilities and Services), J.B. McQuitty.

Unexpended funds in excess of the limiting factors will lapse into a Capital Equipment Contingency Account.

Mutterm Diabetes Centre Accepting 1985 Pilot Project Research Proposals

The Mutterm Diabetes Research and Training Centre was formed in June 1981 at the University of Alberta, through an endowment by the Gladys and Merrill Mutterm Foundation.

The objectives of the Centre are to provide core laboratory facilities for the Centre's investigators; to provide start-up funding for pilot projects; to train investigators interested in diabetes-related research; and to encourage interaction between investigators of the various disciplines and health professionals involved in the care of diabetic patients.

In keeping with these objectives, the centre is now accepting diabetes-related pilot project proposals. The funding for each project will be a maximum of \$7,500. The deadline for submission is 3 December 1984.

Further details and application forms may be obtained by contacting: Mrs. Shirley Moore, Executive Secretary, 8-113F Clinical Sciences Building, telephone 432-6855.

Scholarships, Fellowships and Awards

Department of Fisheries and Oceans Scholarships

Donor: Federal Department of Fisheries and Oceans. **Where tenable:** Université Laval in Quebec City and at l'Université du Québec à Rimouski. **Level:** Master or doctorate programs. **Field:** Studies related to fisheries biology in the French language. **Value:** \$6,000 per year. **Number:** 4 (2 per university). **Duration:** Renewable for two years. **Conditions:** Research project related to fisheries science. Awarded on the basis of scholastic merit. It is hoped that most of the scholarship recipients will seek employment with the Department of Fisheries and Oceans in future fisheries research activities. **Closing date:** 15 December 1984. **Further information and application forms should be requested from:** DFO Scholarships, Fisheries Research Branch, Fisheries and Oceans, Quebec Region, P.O. Box 15, 500, Quebec City, Quebec G1K 7Y7.

Diabetes Canada Awards Program (Studentships)

Donor: Association du diabète du Québec. **Level:** Research leading to an MSc or PhD degree (or equivalent). **Field:** Diabetes. **Number:** Up to two. **Conditions:** Designed to support highly qualified graduate students who are undertaking full-time training in diabetes. **Closing date:** 4 January 1985. **Further information and application forms should be requested from:** Diabetes Personnel Awards Committee, 78 Bond Street, Toronto, Ontario M5B 2J8.

Diabetes Canada Awards Program (Fellowships)

Donor: Diabetes Canada. **Level:** Fellowships are designed to support highly promising candidates holding an MD, DDS, DVM, or PhD degree seeking research training in diabetes. **Field:** Diabetes. **Number:** Up to three from Diabetes Canada. Up to two from Canadian Diabetes Association. One from Association du diabète du Québec. **Closing date:** 4 January 1985. **Further information and application forms should be requested from:** Diabetes Personnel Awards Committee, 78 Bond Street, Toronto, Ontario M5B 2J8.

Diabetes Canada Awards (Scholarships) Program

Donor: Diabetes Canada. **Level:** Newly appointed faculty members. **Field:** Diabetes. **Number:** Up to two. **Conditions:** Recently completed their training in research and show promise of ability to initiate and carry out independent research in diabetes. **Closing date:** 4 January 1985. **Further information and application forms should be requested from:** Diabetes Personnel Awards Committee, 78 Bond Street, Toronto, Ontario M5B 2J8.

Boreal Institute For Northern Studies, Government of Alberta Grants-In-Aid For Northern Research

Donor: Boreal Institute for Northern Studies and the Government of Alberta. **Where tenable:** The Canadian boreal forest region and the Canadian Arctic (primarily Alberta, Yukon and Northwest Territories). **Level:** Open to supervised graduate students, post-doctoral fellows or full-time academic staff located at the University of Alberta, an affiliated college, or Athabasca University. Also open to other residents of Alberta, N.W.T. and Yukon, especially university faculty members or students. **Field:** Northern research. **Value:** Basically, the grant is intended to pay the travel and field subsistence costs for the person(s) engaged in the research. **Number:** Not stated. **Duration:** Two years. **Conditions:** See Students Awards Office for more information on the conditions of the grant. **Closing date:** 31 December 1984. **Further information and application forms should be requested from:** Student Awards Office or Office of the Director, Boreal Institute for Northern Studies, CW-401 Biological Sciences Building, University of Alberta, telephone: 432-4512 or 432-4999.

Positions Vacant

The University of Alberta is an equal opportunity employer but, in accordance with Canadian Immigration requirements, these advertisements are directed to Canadian citizens and permanent residents.

Department of Genetics, Senior Demonstrators, Winter Session 1984-85

To demonstrate laboratory experiments and grading for Biology 297 (Heredity). Covering the cellular and molecular basis of the transmission of hereditary characteristics; Mendelian inheritance and its cytological basis; microbial genetics; cytoplasmic inheritance; linkage and genetic mapping; DNA as genetic material; gene action; the genetic code. This course is scheduled for the day division, 7 January to 30 April. Salary and number of sections to be taught are negotiable depending on experience and available time.

Applications, including curriculum vitae with the names of three referees, should be sent to: Dr. David Nash, Chairman, Department of Genetics, University of Alberta, Edmonton, Alberta T6G 2E9.

Closing date: 2 January 1985, or when the positions are filled.

Non-Academic Positions

A hiring freeze was put in place 21 November 1984. This affects all Non-Academic vacancies previously advertised with the exception of positions funded from Trust/Research accounts and temporary positions.

Positions available as of 23 November 1984.

Administrative Clerk (Term to March 31/85) (\$1,442-\$1,766) Extension (Local Government Studies)

Public Relations/Publications Assistant II (Term to March 31/85) (\$1,625-\$2,003) Housing and Food Services

Technician I (Term to March 31/85) (\$1,497-\$1,842) Provincial Laboratory

Technologist I (Trust) (\$1,697-\$2,092) Medicine (Foods and Nutrition)

Biochemistry Technologist I (Trust) (\$1,697-\$2,092) Cancer Research Group

Nurse Practitioner (Trust) (\$2,486-\$3,009) Pediatrics

Technologist IV (Trust) (\$2,486-\$3,099) Health Services Administration and Community Medicine

For vacant library positions, please contact the Library Personnel Office, Basement, Cameron Library, telephone 432-3339.

Advertisements

Advertisements must reach the Editor by 3 p.m. on the Thursday prior to publication date which date also serves as the deadline for cancellation of advertisements. The cost of placing advertisements is 30 cents per word with no discount for subsequent insertions. There is a maximum limit of 30 words and a minimum charge of \$1.50. Contributors' corrections will be assessed at \$1.50 for each line in which an insertion is made. Advertisements cannot be accepted over the telephone. All advertisements must be paid for in full at the time of their submission.

Accommodations available

Private sale - Parkdale. Attractive, three-bedroom bungalow. Hardwood floors. Fireplace. Brick patio. Landscaped garden. Appliances. Finished basement. \$80,000. 439-5318, leave message.

Share - Non-smoker to share house with one other person. Furnished, treed yard, near University. \$300 plus half utilities. Phone Jim, 428-6744 (days), 434-0921 (evenings).

For sale - By owner. Immaculate, one-bedroom

condominium, overlooking the river valley. Only four minutes from campus. \$49,900. For further details, please call Joan, 487-3912, evenings.

Rent - Six-room, furnished, Belgravian, sabbatical house. 1 May to 15 August. \$400/month plus utilities. 437-2317.

For sale - Townhouse, 1,662 sq. ft., south fenced

backyard, fireplace, five appliances, attached garage. Asking \$75,000. 9% mortgage possible. Liz Crockford, Spencer's, 436-5250, 434-0555 res.

For sale - Belgravian. Beautifully decorated, small bungalow. New kitchen, built-in dishwasher, new broadloom, 130' lot, single garage. Walk to University. Liz Crockford, Spencer's, 436-5250, 434-0555

For rent - Three-bedroom condo, Duggan. Near schools, buses, Southgate. Excellent condition, all appliances. Immediate occupancy. Phone 436-8392, evenings.

Rent - Two-bedroom house on 76 Ave., near University. \$450/month. Phone 426-4304.

Sale - Belgravian. Just listed 2,888', split-level, park-like setting. Family floor plan, main floor family room and laundry, nanny's suite, gleaming hardwood floors. Denise Rout, 435-6355, 436-5250. Spencer's.

Sale - Riverbend condominium. \$74,900. Best price in complex. Popular building, exceptional pool. Two bedrooms, two bathrooms, all appliances, underground parking. Denise Rout, 435-6355, 436-5250. Spencer's.

Roommate wanted - Share Riverbend townhome with non-smoker. Large bedroom, fireplace. Quiet surroundings. Five minutes from University. 435-6355.

Sale - Windsor Park. \$119,000-\$136,500. All have large lots. Good locations. For details, ask for Chris Tenove, 433-5664, 436-5250. Spencer's.

Sale - Riverbend. New listing. Luxury, two-bedroom Essex condo. Pool, jacuzzi, saunas, exercise room, lounge, sunny balcony. Chris Tenove, 433-5664, 436-5250. Spencer's.

Sale - Malmo. New listing. Attractive, immaculate, three-bedroom home. 1 1/2 baths plus jacuzzi. Double garage. Super, south backyard. Chris Tenove, 433-5664, 436-5250. Spencer's.

Sale - University area condos. \$39,500-\$89,900. One and two bedrooms. Appliances included. Chris Tenove, 433-5664, 436-5250. Spencer's.

Sale - Strathcona area. Classic older home with "40s" character. Features new furnace, beautiful new kitchen with bright breakfast nook. Immaculate condition. 1 January possession. Luella Hillmer, 468-3322, 469-1838. Re/Max Real Estate.

Sale - Ten minutes to University. Magnificent ravine location, custom-built, features main floor laundry, open beam construction, fieldstone fireplace, park-like back yard. Luella Hillmer, 468-3322, 469-1838. Re/Max Real Estate.

Share - Mature female share house with same, near Southgate. Good buses. 434-9661, 435-6731.

Automobiles and others

Volvo 1975, 245DL, good condition, automatic. Moving, must sell. \$2,600/offers. 437-4019.

Goods for sale

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Oriental rugs. Handknotted, older and newer rugs, prayer carpets, saddlebags and tribal weavings from Central Asia. 439-6408.

Books bought and sold - The Edmonton Book Store in HUB Mall will pay cash for book collections and individual, rare items. Appraisals available. Open seven days a week. 433-1781.

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Services

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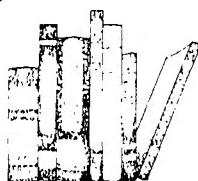
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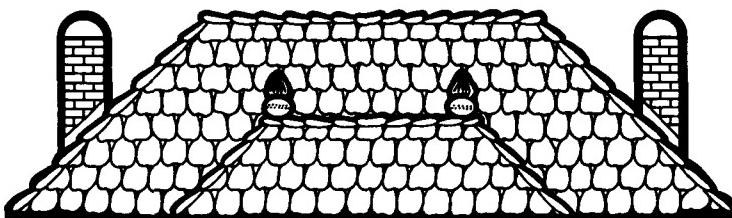
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